

What is claimed is:

1. A cross car beam for a vehicle, comprising:

5 a first cylindrical body arranged along a vehicle-width direction so as to extend from a driver's side to an assistant driver's side;

10 a second cylindrical body arranged on the outer circumference of a first cylindrical body's part on the driver's side and wound around the first cylindrical body in a tight manner, thereby providing the cross car beam with a double-pipe structure of the first cylindrical body and the second cylindrical body.

15 2. The cross car beam of claim 1, wherein at least either one of an end of the first cylindrical body on an assistant driver's side thereof and an end of the second cylindrical body on a driver's side thereof is provided with an attachment part which is formed to be fixable to a constituent member of a vehicle body, the attachment part having a honeycomb structure.

20 3. The cross car beam of claim 2, wherein the honeycomb structure has a plurality of plate ribs formed so as to extend from an axis of the first cylindrical body or an axis of the second cylindrical body in a radial direction.

25 4. The cross car beam of claim 2, wherein the first cylindrical body and the second cylindrical body are respectively provided, on their circumferential surfaces close to the attachment part, with vent blowout ports that communicate with the interior of the first cylindrical body and the interior of the second cylindrical body, respectively.

30 5. The cross car beam of claim 2, further comprising a steering supporting part arranged in the vicinity of the attachment part to support a

steering unit of the vehicle.

6. The cross car beam of claim 2, further comprising a rind member adapted so as to envelop the outer periphery of the end of the first cylindrical member on the assistant driver's side, wherein the attachment part is arranged on an end of the rind member, and the second cylindrical member is provided, on the end on the driver's side, with another attachment part.

7. The cross car beam of claim 1, further comprising a support member, wherein

the second cylindrical body is provided, on a periphery thereof, with a rib having an attachment part for the support member, and

the support member has one end attached to the attachment part and the other end fixed to a constituent member of a vehicle body, whereby an intermediate part of the cross car beam in a vehicle-width direction is supported by the constituent member through the support member.

8. The cross car beam of claim 7, wherein the rib is formed on an inside end of the second cylindrical body in a vehicle-width direction.

9. The cross car beam of claim 7, wherein the attachment part for the supporting member is arranged, in the rib, on the lower side of the second cylindrical body.

10. The cross car beam of claim 1, wherein the first cylindrical body is provided, on its intermediate part in a vehicle-width direction, with an opening for connection with an air conditioning unit.

11. The cross car beam of claim 1, wherein

the first cylindrical body is provided, on a driver's side thereof,
with a steering supporting part to support a steering unit of the vehicle, and
the first cylindrical body's part close to the steering supporting part
is formed to provide the double-pipe structure together with the second
5 cylindrical body.

12. The cross car beam of claim 1, wherein

the first cylindrical body and the second cylindrical body are
respectively made of synthetic resin, and

10 the strength of synthetic resin forming the second cylindrical body
is set higher than that of synthetic resin forming the first cylindrical body.

13. The cross car beam of claim 1, wherein the first cylindrical body is
formed by an upper halved member on the upside of the vehicle and a
15 lower halved member on the downside of the vehicle, both of which are
welded to each other.

14. The cross car beam of claim 1, wherein

the second cylindrical body is provided with a steering support
20 member projecting in a fore-and-aft direction of the vehicle, and

the steering support member is formed by a plate extending from
the periphery of the second cylindrical body in the fore-and-aft direction of
the vehicle and a sidewall part formed around the plate.

25 15. The cross car beam of claim 14, wherein a steering unit is supported
on the lower surface of the steering support member, and the double-pipe
structure's part in the vicinity of the steering support member has a vent
blowout port open on an upper part of the double-pipe structure, thereby
blowing out wind to a vehicle cabin.

16. The cross car beam of claim 14, wherein the steering support member is arranged on the peripheral surface of the second cylindrical body, on both sides in the vehicle fore-and-aft direction.

5 17. The cross car beam of claim 14, wherein
the steering support member has a fastening member molded in one body therewith to project downwardly for attaching a steering unit, so that the steering support member supports the steering unit.

10 18. The cross car beam of claim 1, wherein
the first cylindrical body is formed by halved members, and
one of the halved members is provided with an air-bag attachment member.

15 19. The cross car beam of claim 18, wherein
the first cylindrical body is formed so that its upper surface on an assistant driver's side becomes higher than the upper surface on a driver's side,
the first cylindrical body is formed by an upper halved member on
20 the upside of the vehicle and a lower halved member on the downside of the vehicle, both of which are welded to each other,
the air-bag attachment member is provided on the assistant driver's side of the lower halved member, and
a parting line between the upper halved member and the lower
25 halved member is arranged, on the driver's side, at the central part of the first cylindrical body in a vertical direction and also arranged, on the assistant driver's side, above the air-bag attachment member.

30 20. The cross car beam of claim 19, wherein the parting line on the assistant driver's side is arranged along the upper surface of the first

cylindrical body.

21. The cross car beam of claim 18, wherein the upper surface of the first cylindrical body on the assistant driver's side forms a part of a surface of
5 an instrument panel.